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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

S.S. and K.S., as parents and natural
guardians of their minor child, E.S.,

Plaintiffs,

v.

JUUL LABS, INC, and PAX LABS,
INC.,

Defendants.

CIVIL ACTION

NO:

19 4820

JURY TRIAL DEMANDED

CIVIL COMPLAINT

Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., by way of Complaint against Defendants, JUUL Labs, Inc. and Pax Labs, Inc., allege as follows:

I. INTRODUCTION

1. This is a products liability action alleging personal injuries arising from Defendants' design, manufacturing, marketing and distribution of JUUL e-cigarettes and JUUL pods ("JUUL e-cigarettes"), which contain three times more nicotine than is necessary to satisfy the nicotine cravings of an adult smoker and deliver extreme doses of nicotine in an aerosolized vapor intentionally designed to taste like candy.

2. Though purportedly designed for adult smokers, Defendants' marketing of JUUL e-cigarettes occurred on youth-heavy social media platforms and used imagery that appealed to under-aged consumers, such as Plaintiff, E.S. As a direct result of these improper marketing tactics, JUUL use ("JUULing") has become wildly pervasive in middle schools and high schools throughout the United States.

3. Plaintiff, E.S., a 13-year-old middle school student, first tried JUUL e-cigarettes in approximately December 2018. E.S. quickly grew intensely addicted to nicotine. Despite measures taken by his parents to get him to quit JUULing, E.S. continued to JUUL. E.S. cannot stop JUULing, despite wanting to quit. He has experienced withdrawal symptoms when he does not JUUL. E.S. is battling addiction to nicotine, which has altered his brain physically and chemically, and has put him at risk for a lifetime of health problems¹, to say nothing of the economic costs of nicotine addiction.

II. JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction over this action pursuant to the diverse citizenship of the parties. 28 USCS § 1332(a)(2). Plaintiffs are citizens and residents of the Commonwealth of Pennsylvania. Defendants, JUUL Labs, Inc. (“JUUL”) and Pax Labs, Inc. (“PAX”) are each Delaware corporations with principal places of business in San Francisco, California.

5. Personal jurisdiction exists over Defendants, JUUL and PAX, in Pennsylvania due to the general and specific contacts they maintain. More specifically, Defendants intentionally and continuously market and sell JUUL e-cigarettes throughout the Commonwealth of Pennsylvania. Defendants maintain these contacts presently and did so at all times material to this action. The amount in controversy exceeds \$75,000.

6. Venue is proper in this District pursuant to 28 U.S.C. § 1391 as a substantial part of the events and/or omissions giving rise to the Plaintiffs’ claims emanated from activities within this jurisdiction and Defendants conduct substantial business within this jurisdiction.

¹ England, L.J. et al., *Developmental toxicity of nicotine: A transdisciplinary synthesis and implications for emerging tobacco products*, Vol. 72 NEUROSCI. BEHAV. REV. 176-189 (2017).

III. THE PARTIES

7. Plaintiffs, S.S. and K.S., are the natural parents and guardians of their minor child, E.S., and are citizens of the Commonwealth of Pennsylvania residing within Pennsylvania.

8. Plaintiff, E.S., is a minor child and a citizen of the Commonwealth of Pennsylvania residing within Pennsylvania.

9. Defendant, Defendant JUUL Labs, Inc. (“JUUL”) is a foreign corporation incorporated under the laws of the State of Delaware with a principal place of business in San Francisco, California. JUUL presently manufactures, designs, sells, markets, promotes and distributes JUUL brand e-cigarettes.

10. Defendant, Pax Labs, Inc. (“PAX”) is a foreign corporation incorporated under the laws of the State of Delaware with a principal place of business in San Francisco, California. Prior to 2017, Defendant, PAX, manufactured, designed, sold, marketed, promoted and distributed JUUL (then known as “Ploom” or “Pax”) brand e-cigarettes.

IV. FACTUAL ALLEGATIONS COMMON TO ALL COUNTS

11. The JUUL e-cigarette is a two-piece system that, combined, is about the size and shape of a USB thumb drive. It consists of a rectangular enclosure containing a rechargeable battery and heating element (the “JUUL device”), and a pre-filled pod of JUUL’s patented nicotine solution (the “JUULpod”), which slides into the end of the JUUL device.² The JUUL e-cigarette is a proprietary system that is incompatible with other e-cigarette components or liquids.

² Cool-Looking and Sweet, JUUL Is a Vice Teens Can’t Resist, THE NEW YORK TIMES, Feb. 16. 2018 <https://www.nytimes.com/2018/02/16/nyregion/juul-teenagers-vaping-ecigarettes-dangers.html> (last accessed October 16, 2019).

12. When a sensor in the JUUL e-cigarette detects the movement of air caused by suction on the JUUL pod, the battery in the JUUL device activates the heating element, which in turn converts the nicotine solution in the JUUL pod into a vapor consisting principally of nicotine, glycerine, and propylene glycol³ that is inhaled into the lungs.

13. A light embedded in the JUUL device serves as a battery level indicator. The light embedded in the JUUL device gratuitously lights up in a display of rainbow of colors when the JUUL device is waved around.

14. There are no warnings about the existence of nicotine or the risks of nicotine addiction anywhere on the JUUL products or JUUL packaging. Specifically:

- a. There are no nicotine warnings on the JUUL device;
- b. There are no nicotine warnings on the JUULpods;
- c. There are no nicotine warnings on the JUUL device packaging; and
- d. There are no nicotine warnings on the JUULpod packaging.

A. DEFENDANTS DESIGNED A PRODUCT THAT POSES UNPRECEDENTED RISKS OF NICOTINE ADDICTION, AND MANUFACTURED AN EVEN MORE ADDICTIVE PRODUCT THAN THE ONE THEY DESIGNED

15. What distinguishes the JUUL e-cigarette from competing e-cigarettes is Defendants' patented nicotine formulation, which is used in every JUULpod.

16. JUUL's nicotine formulation is directly derived from decades of research by cigarette companies seeking to create and foster addiction.

³ Bhatnagar, A., *E-Cigarettes and Cardiovascular Disease Risk: Evaluation of Evidence, Policy Implications, and Recommendations* , Vol. 10:24 CURR. CARDIOVASC. RISK REP. (2016).

17. JUUL's formulation uses a combination of nicotine salts and benzoic acid—an organic acid—to deliver a palatable dose of nicotine with stronger narcotic effects than a cigarette.

18. The role of organic acids in JUUL's formulation is best explained by a 1973 tobacco company memorandum titled Cigarette Concept to Assure RJR a Larger Segment of the Youth Market, which provided that the use of organic acids to alter the pH of an inhaled nicotine product gives the product an “additional nicotine ‘kick’” that youth find appealing—i.e., addictive.⁴ This kick is the result of increased nicotine absorption associated with altered pH levels.⁵

19. The benzoic acid in JUULpods serves to alter the pH of the nicotine salt in the JUULpods and creates an even more potent nicotine kick than cigarettes. In U.S. patent No. 9,215,895 (“the ‘895 patent”), assigned to “Pax Labs, Inc.” and listing JUUL executive Adam Bowen as an inventor, JUUL details a process for combining benzoic acids with nicotine salts to create an aerosolized nicotine vapor that is more potent than a cigarette.

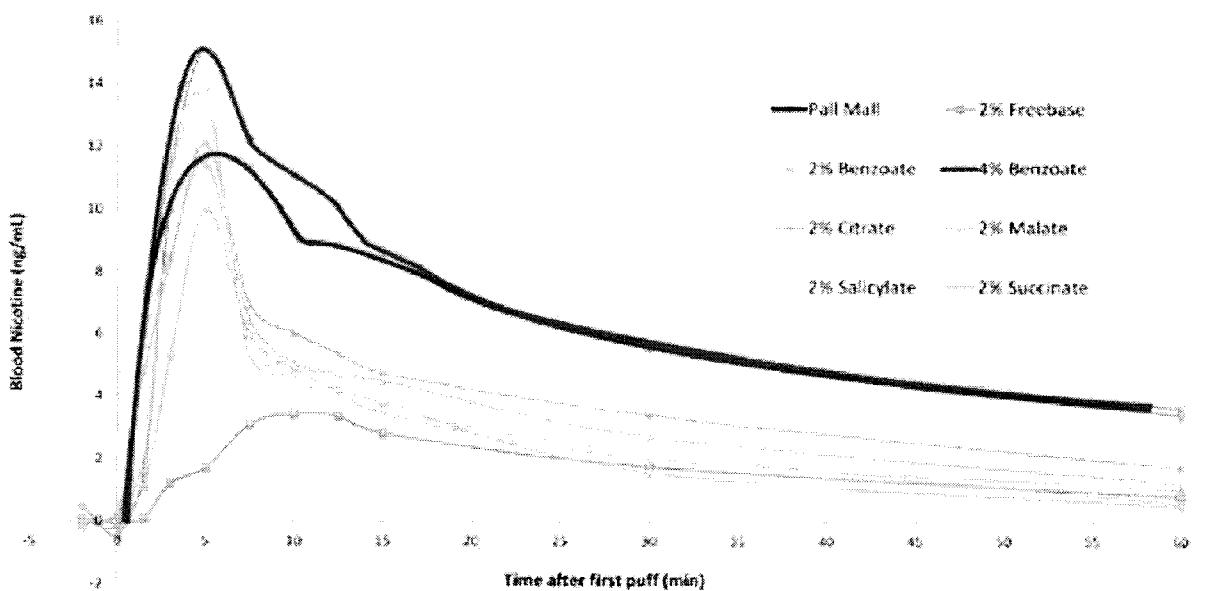
20. Specifically, the JUULpods’ formula is more potent than a cigarette in three respects: (1) JUUL’s formula causes physiologically perceptible amounts of nicotine to enter the bloodstream faster than a cigarette; (2) JUUL’s formula causes a higher peak nicotine-blood

⁴ 1973 R.J. Reynolds Tobacco Co. memo, “Cigarette concept to assure RJR a larger segment of the youth market.”

⁵ Neal Benowitz et al., *Nicotine Chemistry, Metabolism, Kinetics and Biomarkers*, Vol. 192 Nicotine Psychopharmacology at 22-29, Handbook of Experimental Pharmacology available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2953858/> (last accessed October 16, 2019).

concentration (“cMax”) than a cigarette; and (3) JUUL’s formula delivers more total nicotine into the bloodstream than a cigarette.⁶

21. The following figure from the ’895 patent shows that a 4% solution of benzoic acid and nicotine salt, which is the formula used in JUULpods, causes a peak nicotine-blood concentration (“Cmax”) of approximately of approximately 15 ng/mL, compared to a Cmax of 11 ng/mL for a Pall Mall cigarette. (To make the figure more readable, JUUL’s 4% nicotine benzoate data is highlighted in red, and the Pall Mall data is highlighted in blue.)



⁶ *Truth Initiative Inspiring Tobacco-Free Lives* at <https://www.truthinitiative.org/research-resources/emerging-tobacco-products/how-much-nicotine-juul> (last accessed October 16, 2019).

22. As high as the reported nicotine dose reported for JUULpods is, the actual dose is likely far higher. Though the strongest benzoic acid concentration mentioned in the '895 patent is 4% (i.e., 40 mg/mL of benzoic acid), one study tested four flavors of JUULpods and found a 4.5% benzoic acid (44.8 ± 0.6) solution.⁷ The study also found that JUULpods contained a concentration of 6.2% nicotine salt (about 60 mg/mL), rather than the 5% nicotine (about 50 mg/mL) advertised. Because even “a small percentage [pH change from an organic acid] can double, triple, or quadruple the amount of free nicotine available,”⁸ these deviations from the '895 patent’s formula result in massive variations in the amount of nicotine absorbed into the bloodstream.

23. While Defendants claim one JUULpod is “approximately equivalent to about 1 pack of cigarettes,” some experts estimate JUULpods actually deliver the same amount of nicotine as two packs of cigarettes.⁹

24. Defendants negligently and intentionally failed to disclose to consumers that the JUULpods’ nicotine salt formulation delivers an exceptionally potent dose of nicotine.

25. Defendants intentionally and fraudulently concealed material information about the addictive and dangerous nature of its e-cigarettes. Defendants are uniquely in possession of additional information regarding their efforts to conceal this information from consumers.

B. DEFENDANTS CONSPIRED WITH OTHERS IN THE CIGARETTE INDUSTRY TO ENGAGE THIRD-PARTY SPOKESPERSONS TO

⁷ Pankow JF, et al., Benzene formation in electronic cigarettes, PLoS ONE 12(3): e0173055 (2017). See <https://doi.org/10.1371/journal.pone.0173055> (last accessed October 16, 2019).

⁸ See e.g., *United States v. Philip Morris*, Case No. 99-cv-02496, 972-1209 (D.D.C. Aug. 17, 2006).

⁹ Six important facts about JUUL, Truth Initiative, <https://truthinitiative.org/research-resources/emerging-tobacco-products/6-important-facts-about-juul> (last accessed October 16, 2019).

**DOWNPLAY THE RISKS OF E-CIGARETTES, CREATE DOUBT,
AND MISREPRESENT THE BENEFITS OF NICOTINE**

26. Because Defendants understood they could not specifically make health-related claims without drawing the ire of the FDA, JUUL conspired with others, including others in the cigarette industry to engage consultants, academics, reporters, and other friendly sources such as the American Enterprise Institute, to serve as spokespersons and cheerleaders for e-cigarette products. Taking yet another page from the cigarette-industry playbook, these influencers masked their connection to the e-cigarette industry, while serving as its mouthpiece to cast doubt about risks and overstate benefits.

27. For example, just as JUUL launched, cigarette company expert witness Sally Satel published an article in Forbes Magazine touting the benefits of nicotine—claiming it aids in concentration—and stating that it is harmless.¹⁰ In another article, she lauded efforts by JUUL and others to develop nicotine-related products, and cast any doubters as hysterical and creating a “panic”.¹¹

28. Numerous other articles, videos, and podcasts—also spread through social media—echoed this same message that the public health community was overreacting to e-cigarettes and in a panic about nothing.

29. During each of its multiple fundraising rounds, JUUL assured potential investors that addiction to something that is not harmful is not harmful, suggesting that JUUL was no more harmful than coffee.

¹⁰ Satel, Nicotine Itself Isn't The Real Villain (Jun 19, 2015), Forbes, www.forbes.com/sites/sallysatel/2015/06/19/nicotine-can-save-lives/#60379f766f43 (as of July 5, 2019).

¹¹ Satel, Why The Panic Over JUUL And Teen Vaping May Have Deadly Results (Apr 11, 2018), Forbes, www.forbes.com/sites/sallysatel/2018/04/11/why-the-panic-over-juul-and-teen-vaping-may-have-deadly-results/#6b1ec693ea48 (as of July 5, 2019).

30. Upon information and belief, JUUL and its co-conspirators spread this message through hired third-party spokespersons and influencers.

31. Furthering their campaign of doubt and confusion, when asked directly about health risks, JUUL's employees and founders would point reporters to other sources to indicate that its products had been shown to be safe, or not harmful, rather than admit what they knew were the dangers.

32. JUUL well-understood from the cigarette industry playbook that sowing doubt and confusion over the benefits and risks of e-cigarettes is key to long-term success. First, by creating a "two-sides-to-every-story" narrative, JUUL reduced the barriers for young people and new users to try JUUL, and gave addicted users permission to keep using the product and avoid the pain of withdrawal. Second, by engaging people who looked like independent experts, JUUL staved off regulation and suppressed political opposition, allowing it a long runway to capture market share. Third, by belittling the public health community, JUUL neutralized its most vocal threat.

33. Upon information and belief, JUUL conspired with others in the cigarette industry to fraudulently conceal the risks of e-cigarettes, recognizing that a campaign of doubt, misinformation and confusion would benefit all of them and would be the key to the industry's collective survival.

B. JUUL'S CANDY-LIKE FLAVORS AND YOUTH CENTRIC MARKETING EFFORTS, COUPLED WITH DEFENDANTS' SALES PRACTICES, HAVE CREATED A CRISIS

34. Though the JUUL e-cigarette has been on the market for just over four years, a recent study of more than 1,000 12 to 17-year-olds found that 6.5% admitted to using a JUUL e-cigarette.

35. Public health authorities, independent studies, and expert witnesses found credible by courts have found that marketing is a substantial contributing factor to youth tobacco initiation.

36. Ubiquitous advertisements of tobacco products normalize and legitimize youth tobacco use among youth, who are unequipped to grasp the implications of addiction to tobacco. Because youth are particularly susceptible to imagery, tobacco companies have preyed upon young people for decades by creating advertising images that exhibit images portraying independence, adventurousness, sophistication, glamour, social inclusion, sexual attractiveness, thinness, popularity, rebelliousness, and being “cool.”¹²

37. Defendants’ release of the JUUL e-cigarette in June 2015 was accompanied by a multimillion dollar “Vaporized” marketing campaign. The campaign included a massive 12-screen billboard advertisement over New York’s Times Square, and a full spread in Vice magazine, which promotes itself to advertisers, like JUUL, as the “#1 youth media in the world.”¹³ A few images from the campaign are reproduced below:

¹² *Id.*

¹³ VICE Digital Media Kit, January 2016, <https://upload-assets.vice.com/files/2016/01/15/1452894236compressed.pdf> (last accessed October 16, 2019).



38. To the extent that any nicotine or addiction warnings accompanied the Vaporized advertisements, they were relegated to fine print against low-contrast backgrounds.

39. Images from the Vaporized campaign and similar images were broadly and repeatedly disseminated through Defendants' unusually active social media accounts on platforms frequented by the overwhelming majority of youth in the United States, such as Instagram and Twitter.

40. Upon information and belief, JUUL maintains active accounts on most social media platforms, including Instagram, Facebook, and Twitter, where JUUL tweeted nearly 5,000 times in 2017 alone.

41. As of 2016, 76 percent of American teens age 13-17 used Instagram, 66 percent of teens use Facebook, and 44 percent of teens used Twitter.¹⁴

42. A recent study explored the growth of JUUL's sales and its presence on social media platforms.¹⁵ The study found that JUUL grew nearly 700% in 2017 yet spent "no recorded money" in the first half of 2017 on major advertising channels, and spent only \$20,000 on business-to-business advertising. Despite JUUL's apparently minimal advertising spending in 2017, the study found a significant increase in JUUL-related tweets in 2017.

43. On Instagram, the study found seven JUUL-related accounts, including DoIt4JUUL and JUUL.girls, which accounted for 4,230 total JUUL-related posts and had more than 270,000 followers.

44. In addition to JUUL's explosive growth on individual social media platforms, the study found JUUL products being marketed across social media platforms in an apparently coordinated fashion, including smaller targeted campaigns and affiliate marketing, all of which caused the authors to question whether JUUL was paying for positive reviews and JUUL-related social media content.

45. Though the study could not demonstrate that JUUL paid social media "influencers" or automated twitter accounts to help promote JUUL or its products through social media channels, the authors did cite to a story about a popular YouTube e-cigarette reviewer

¹⁴ Associated Press-NORC Center for Public Affairs Research, *Instagram and Snapchat are Most Popular Social Networks for Teens*, <http://apnorc.org/projects/Pages/HTML%20Reports/instagram-and-snapchat-are-most-popular-social-networks-for-teens.aspx> (last accessed October 16, 2019).

¹⁵ Jidong Huang et al., *Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market*, TOBACCO CONTROL, <http://tobaccocontrol.bmjjournals.org/content/early/2018/05/31/tobaccocontrol-2018-054382> (last accessed October 16, 2019).

claiming that JUUL has at least demonstrated a willingness to pay for favorable reviews or other forms of “native” coverage on unrestricted social media platforms.¹⁶

46. Some Twitter users have reported what appear to be JUUL bots – i.e., software-driven social media accounts that programmatically engage in social media activity to promote some end. Other Twitter users appear to either be bot accounts or native advertisers, in that they have a small number of followers, follow few other users, and post exclusively about JUUL content.¹⁷

47. A significant amount of JUUL-related social media activity arises from manufacturers and sellers of JUUL clothing, JUUL “skins” (decorative vinyl wrappers for JUUL devices), and off-brand nicotine pods that are compatible with JUUL devices. These manufacturers sell JUUL products, including regulated nicotine products, directly through social media sites, auction sites like eBay, and sites without adequate age verification controls. Defendants’ apparent failure to protect their intellectual property rights directly benefits them by increasing the amount of exposure JUUL products receive, thereby normalizing the use of JUUL e-cigarettes. The imagery used on JUUL skins demonstrate, at a minimum, that an expansive market exists for youth-oriented JUUL accessories.

48. Defendants’ intent to market to young non-smokers is apparent from JUUL’s manufacturing and sale of JUUL pods in a variety of flavors that have no tobacco cigarette analog, including mango, “cool” cucumber, fruit medley, cool mint, and crème brulee. 86% of

¹⁶ Ali Conti, *This 21-Year-Old is Making Thousands a Month Vaping on YouTube*, https://www.vice.com/en_us/article/8xvjmk/this-21-year-old-is-making-thousands-a-month-vaping-on-youtube (last accessed October 16, 2019).

¹⁷ See e.g. @HenrytheJUUL available at <https://twitter.com/henrythejuul> (last accessed October 16, 2019).

underage JUUL users report that they most recently used a JUULpod in fruit medley, mango, cool mint, or crème brûlée.

49. JUUL's selection of flavors that appeal to teens has a marked effect on e-cigarette adoption by underage "vapers." A national survey found that 81 percent of youth aged 12 to 17 years old who had ever used e-cigarettes had used a flavored e-cigarette the first time they tried the product, and that 85.3 percent of current youth e-cigarette users had used a flavored e-cigarette in the past month. Moreover, 81.5 percent of current youth e-cigarette users said they used e-cigarettes "because they come in flavors I like."¹⁸ The use of attractive flavors foreseeably increases the risk of nicotine addiction, as traditional cigarette product designs aimed at reducing the unpleasant characteristics of cigarette smoke (e.g., addition of menthol to mask unpleasant flavors) have previously been shown to contribute to the risk of addiction.¹⁹

50. Another peer-reviewed study concluded that "[y]oung adults who use electronic cigarettes are more than four times as likely to begin using regular cigarettes as their non-vaping peers, a new study has found."²⁰

51. JUUL e-cigarettes have become a "coveted teen status symbol and a growing problem in high schools and middle schools, spreading with a speed that has taken teachers parents and school administrators by surprise."²¹

¹⁸ See Ambrose, BK, et al., *Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014*, JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (October 26, 2015).

¹⁹ See How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease, A Report of the Surgeon General, Centers for Disease Control and Prevention, et al (1964) available at <https://www.ncbi.nlm.nih.gov/books/NBK53018/> (last accessed October 16, 2019)

²⁰ B.A. Primack et al., *Initiation of Traditional Cigarette Smoking after Electronic Cigarette Use Among Tobacco-Naïve US Young Adults*, Vol. 131, Issue 4 at 443.e1–e9, available at [https://www.amjmed.com/article/S0002-9343\(17\)31185-3/fulltext](https://www.amjmed.com/article/S0002-9343(17)31185-3/fulltext) (last accessed October 16, 2019).

²¹ Anne Marie Chaker, *Schools and Parents Fight a JUUL E-Cigarette Epidemic*, THE WALL STREET JOURNAL, <https://www.wsj.com/articles/schools-parents-fight-a-juul-e-cigarette-epidemic-1522677246> (last accessed October 16, 2019).

52. In a recent New York Times article concerning the pervasiveness of JUUL e-cigarettes among children,²² a Connecticut high school student was quoted as stating “you go to the bathroom. . . there’s a 50-50 chance that there’s five guys JUULing.” In the same article, a Kentucky high school student captured some of the appeal of JUUL e-cigarettes to children, “In my opinion it looks like the coolest thing ever. Almost futuristic . . . It’s so small, so easy to hide in the palm of your hand,” he said. “And they’re rechargeable! I’ve lost track of the number of people I have found charging their JUULs in class through their laptops.” A high school journalist quoted in the article stated “It’s ironic. This product was made to wean addicts off cigarettes, and in reality it’s attracting teenagers who would never smoke.”

53. The notion that JUUL e-cigarettes are or were intended to wean addicts off cigarettes is a farce of JUUL’s creation. Because the JUUL e-cigarette puts more nicotine into the blood than a cigarette, JUUL use is likely to worsen nicotine addictions in smokers.

54. Although framed as a safer alternative to smoking, Defendants’ JUUL e-cigarettes and JUUL pods still pose serious health risks to teenage users. According to a 2016 report of the United States Surgeon General, *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General*, (“Surgeon General Report”) besides nicotine addiction itself, the nicotine in JUULs and other e-cigarettes negatively influences adolescent brain development, specifically impairing cognitive, attention, and memory processes and increasing the risk of anxiety disorders and depression.²³ Moreover, according to the Surgeon General, there is a “potential association [of e-cigarette use] with cardiovascular disease.”²⁴ Finally, the Surgeon General reported that nicotine use increases the risk the adolescent will

²² See <https://www.nytimes.com/2018/04/07/style/the-juul-is-too-cool.html> (last accessed October 16, 2019).

²³ 2016 Surgeon General Report at 106-107.

²⁴ *Id.* at 101.

use other unlawful drugs, and several studies have shown that e-cigarette users are more likely to start smoking.²⁵

55. In addition, JUUL e-cigarettes and JUULpods deliver dangerous toxins and carcinogens to users. With respect to JUULpods in particular, one recent study found that “the concentrations of nicotine and some flavor chemicals (e.g. ethyl maltol) are high enough to be cytotoxic in acute in vitro assays”²⁶

56. The flavoring compounds used in e-cigarettes include chemicals known to be toxins if inhaled, such as diacetyl, acetyl propionyl, and benzaldehyde. These chemicals are linked to serious lung disease.²⁷

57. Ultrafine metal particles from the heating device have been found in e-cigarette aerosol, and in e-cigarette user’s lungs.²⁸

58. Recent studies have also linked lung inflammation, poor immune response, weakened lung structure, ‘liquid pneumonia,’ chest abnormalities, and clinical respiratory symptoms, some requiring intubation and mechanical ventilation and even life support, to e-cigarette use.²⁹

²⁵ See e.g., NHI National Institute of Drug Abuse <https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes> (last accessed October 16, 2019).

²⁶ Omaiye *et al.*, High-nicotine electronic cigarette products: Toxicity of JUUL fluids and aerosols correlates strongly with nicotine and some flavor chemical concentrations, (Apr. 17, 2019) *Chem Res Toxicol* 17;32(6):1058-1069 www.ncbi.nlm.nih.gov/pubmed/30896936 (as of Sept. 25, 2019).

²⁷ Centers for Disease Control & Prevention, Flavorings-Related Lung Disease (2017), <https://www.cdc.gov/niosh/topics/flavorings/default.html> (as of Sept. 25, 2019); Lee, *et al.*, Modeling cardiovascular risks of e-cigarettes with human-induced pluripotent stem cell-derived endothelial cells, *J. Am College of Cardiology* (2019); Kaplan, *et al.*, Mysterious vaping illness that’s ‘becoming an epidemic,’ *N.Y. Times* (2019), <https://www.nytimes.com/2019/08/31/health/vaping-marijuana-ecigarettes-sickness.html?auth=login-email&login=email> (as of Sept. 25, 2019).

²⁸ Caporale, *et al.*, Acute effects of electronic cigarette aerosol inhalation on vascular function detected at quantitative MRI, *Radiology* (2019).

²⁹ Henry, *et al.*, Imaging of vaping-associated lung disease, *New England J. of Med.* (2019), <https://www.nejm.org/doi/full/10.1056/NEJMc1911995> (as of Sept. 25, 2019); Layden, *et al.*, Pulmonary illness related to e-cigarette use in Illinois and Wisconsin—Preliminary report, *New England J. of Med.* (2019), <https://www.nejm.org/doi/full/10.1056/NEJMoa1911614> (as of Sept. 25, 2019); Maddock, *et al.*, Electronic cigarettes disrupt lung lipid homeostasis and innate immunity independent of nicotine, *J. Clinical Investigation* (2019),

59. Recent case reports have linked spontaneous pneumothorax (lung collapse) to vaping and use of e-cigarettes.³⁰

C. Plaintiff, E.S.'S USE OF JUUL E-CIGARETTES RESULTED IN HIS ADDICTION TO NICOTINE

60. Plaintiff, E.S., at the time of filing this complaint, is a 13-year-old minor and middle school student.

61. As a middle school student, Plaintiff is in an environment in which JUUL e-cigarettes use is pervasive. Students use JUUL on the campus, in bathrooms, outside school and even in class.

62. As a proximate result of Defendants' misconduct, E.S. is addicted to nicotine, putting him at serious risk for life-long health problems including increased risk of heart disease and stroke, changes in brain functionality that lead to increased susceptibility to anxiety, depression and other addictions, decreased functionality of the endocrine system; heightened risk of cancer; and negative effects on fertility.³¹ Health risks aside, Plaintiff also faces a

<https://www.ncbi.nlm.nih.gov/pubmed/31483291> (as of Sept. 25, 2019); Maddock, et al., Pulmonary lipid-laden macrophages and vaping, *New England J. of Med.* (2019), <https://www.nejm.org/doi/full/10.1056/NEJMc1912038> (as of Sept. 25, 2019); Martin, et al., E-cigarette use results in suppression of immune and inflammatory-response genes in nasal epithelial cells similar to cigarette smoke, *Am. J. of Physiology* (2016), <https://www.ncbi.nlm.nih.gov/pubmed/27288488> (as of Sept. 25, 2019);

³⁰ Bonilla, et al., Recurrent spontaneous pneumothoraces and vaping in an 18-year-old man: a case report and review of the literature, *J. of Med. Case Reports* (2019), <https://doi.org/10.1186/s13256-019-2215-4> (last accessed October 16, 2019).

³¹ E-cigarettes release aerosol ultrafine particles that are carried into the lungs, triggering inflammatory processes and contributing to cardiovascular disease and acute cardiovascular events. See Glantz, S.A. Bareham, *D.W. E-Cigarettes: Use, Effects on Smoking, Risks, and Policy Implications*, Vol. 39 *ANNUAL REVIEW OF PUBLIC HEALTH* 215-235 (2018); E-cigarette smoking can initiate the loss of blood-brain barrier (BBB) integrity and vascular inflammation and act as a promoting factor for the onset of stroke. See Kaisar, M., et al., *Offsetting the impact of smoking and e-cigarette vaping on the cerebrovascular system and stroke injury: Is Metformin a viable Countermeasure*, Vol. 13 *REDOX BIOLOGY* 353-362 (2017); Nicotine exposure from cigarette smoking found to alter hormonal levels and metabolic homeostasis. See Tweed, J.O. et al., *The endocrine effects of nicotine and cigarette smoke*, Vol. 23(7) *TRENDS ENDOCRINOL. METAB.* 334-42 (2013); E-cigarette use is associated with changes in DNA methylation across the genome. See Philibert, R. et al, *A quantitative epigenetic approach for the assessment of cigarette consumption*, Vol. 6:656 *FRONT PSYCHOL.* (2015); Adolescent nicotine exposure is associated with an increased risk of mood and attention symptoms. See Fadus, M.C. et al., *The rise of e-cigarettes, pod mod devices,*

lifetime of economic losses necessary to sustain a nicotine addiction for the remainder of his life.

COUNT I
Negligence- Design Defect
Plaintiffs v. All Defendants

63. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

64. Defendants designed, developed, manufactured, marketed, sold and distributed JUUL e-cigarettes.

65. The JUUL e-cigarettes were expected to and did reach consumers such as Plaintiff E.S. without substantial change in the condition in which they were designed, developed, manufactured, marketed, sold and distributed by Defendants.

66. By using the JUUL e-cigarettes to inhale JUUL's flavored vapors, Plaintiff was using the JUUL e-cigarettes for the purpose and manner intended by, or reasonably foreseeable to Defendants.

67. Defendants knew or should have known that the JUUL e-cigarettes were in a defective condition and not reasonably safe for their intended use.

and JUUL among youth: Factors influencing use, health implications, and downstream effects, Vol. 201: 85-93 DRUG AND ALCOHOL DEPENDENCE (2019); E-cigarettes contain toxic volatile organic chemicals (VOCs), some of which are known carcinogens; VOC levels in adolescent e-cig users' urine and saliva samples significantly higher than non-smoking peers. See Rubinstein, M. et al., *Adolescent Exposure to Toxic Volatile Organic Chemicals from E-Cigarettes* Vol. 141(4) PEDIATRICS (2018); Nicotine and sperm motility are negatively correlated, as nicotine metabolites break down in seminal fluid. Cadmium, a heavy metal found in e-cigarettes, is associated with low sperm density; See Bourke, L. et al., *E-cigarettes and Urologic Health: A Collaborative Review of Toxicology, Epidemiology, and Potential Risks.*, Vol. 71 EUROPEAN EUROLOGY 915-23 (2017). See generally E-Cigarette Use Among Youth and Young Adults, A Report of the Surgeon General, U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, Rockville MD (2016).

68. With this knowledge, Defendants designed JUUL e-cigarettes in a defective condition for consumption by the public and by Plaintiff.

69. Defendants could have designed a safer e-cigarette that would contain far less nicotine or would contain nicotine in a formulation which was less likely to cause addiction by consumers of JUUL.

70. In addition, Defendants could have designed an e-cigarette that was far less likely to appeal to children and other persons not already addicted to nicotine by only offering tobacco flavors and not the candy-like flavorings JUULs did offer.

71. In addition, Defendants could have designed an e-cigarette that did not gratuitously flash rainbow colors when waved around, which had the effect of enticing young users.

72. Instead, Defendants designed JUUL e-cigarettes to deliver high levels of nicotine and in a formulation that was certain to result in JUUL users becoming addicted to nicotine.

73. Further, Defendants offered JUUL e-cigarettes in candy-like flavors which appealed to children and other persons who were not already addicted to nicotine.

74. These defects were a substantial factor in Plaintiff becoming addicted to nicotine and being at risk for the severe health problems set forth above.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally, and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees

COUNT II
Strict Liability-Manufacturing Defect
Plaintiffs v. All Defendants

75. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

76. According to JUUL's labels, JUULpods are supposed to contain 60 mg/mL of nicotine.

77. According to JUUL's '895 patent, JUULpods are intended to contain 4% benzoic acid by weight.

78. The JUULpods manufactured by Defendants contained more than 60mg/mL nicotine.

79. The JUULpods manufactured by Defendants contained more than 4% benzoic acid.

80. As a result of these manufacturing defects, the already extreme risk of addiction posed by JUUL e-cigarettes was heightened to an extent that increased the already extreme addiction risks the JUUL e-cigarettes posed.

81. These defects were a substantial factor in Plaintiff's nicotine addiction and injuries.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally, and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees.

COUNT III
Negligence-Warnings Defect
Plaintiffs v. All Defendants

82. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

83. JUUL e-cigarettes manufactured and/or sold by Defendants were further designed defectively because the JUUL e-cigarettes and pods were not labeled with an adequate warning.

84. The lack of an adequate warning label on JUUL device enclosures and on JUULpod enclosures rendered these products defective and not reasonably safe for their intended or foreseeable use.

85. The warning label on JUUL packaging and or/on JUUL's website was inadequate and rendered JUUL e-cigarettes defective and not reasonably safe for their intended use.

86. The warning Defendants place on the JUUL website and on JUUL packaging does not accurately convey the addicting nature of JUUL e-cigarettes. Specifically, the warnings do not inform potential users that JUUL e-cigarettes contain levels of nicotine far higher than cigarettes commonly used at this time and that JUUL e-cigarettes are designed to deliver nicotine in a manner that made it far more likely users would become addicted to JUUL.

87. Moreover, many JUUL users such as Plaintiff were offered hits of JUUL when the e-cigarettes were already opened and separated from the packaging and therefore the packaging was never seen by Plaintiff until he/she had already become addicted to nicotine.

88. This inadequate warning was a substantial factor in Plaintiff becoming addicted to nicotine and being at risk for the severe health problems set forth above.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally,

and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees

COUNT IV
Negligent Marketing
Plaintiffs v. All Defendants

89. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

90. Defendants had a legal duty to design and market a safer-e-cigarette that would not attract users who were not previously addicted to nicotine. Defendants assumed that duty by announcing in their marketing materials that JUUL e-cigarettes were intended for smokers and Defendants intended to prevent children from using their products.

91. Defendants breached this duty by designing JUUL e-cigarettes in flavors designed to appeal to non-smokers, children, and young people such as Plaintiff.

92. Defendants further breached this duty by inadequately regulating the sales of its product, through its own website and through the websites and retail locations of its retailers.

93. Defendants further breached this duty by failing to affix nicotine warning verbiage to JUUL device enclosures.

94. Defendants further breached this duty by failing to affix nicotine warning verbiage to JUULpod cases.

95. Defendants further breached this duty by failing to affix nicotine warning labels to its JUUL device or JUULpod packaging.

96. Defendants further breached this duty by failing to post nicotine warning signs on signage in retail point of sale locations.

97. Defendants further breached this duty by launching the Vaporized campaign, which used imagery enticing to teenagers and contained minimal warnings, if any.

98. Defendants further breached this duty through social media campaigns that reached youth and contained inadequate warnings, if any at all, about the addictive nature of its product.

99. Defendants thereafter caused JUUL e-cigarettes to be shipped from the place of manufacture and caused them to be delivered to a place or point within the Commonwealth of Pennsylvania where it was foreseeable that they would be, and were in fact, purchased by the public, including Plaintiff.

100. This inadequate design was a substantial factor in Plaintiff becoming addicted to nicotine and being at risk for the severe health problems set forth above.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally, and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees.

COUNT V
Intentional Misrepresentation
Plaintiffs v. all Defendants

101. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

102. At all relevant times, Defendants intentionally made the following misrepresentations to JUUL consumers, including Plaintiff, E.S., through media, advertising, website, social media, packaging and/or promotions:

- a. That JUUL products were safe or not harmful to consumers' health; and
- b. That one JUULpod is "approximately equivalent to about 1 pack of cigarettes".

103. Defendants knew these representations were false or made them recklessly without regard for their truth.

104. Defendants intended for consumers, like Plaintiff, E.S., to rely on these representations in order to increase or maintain their profit margin.

105. Each of these misrepresentations were material at the time they were made. In particular, each of the misrepresentations concerned material facts that were essential to Plaintiff, E.S.'s decision to purchase or consume JUUL products.

106. Defendants have yet to correct these misrepresentations about JUUL products.

107. Plaintiff, E.S., reasonably relied on Defendants' misrepresentations and was proximately harmed by them as described above. Plaintiff's reliance on Defendants' representations was a substantial factor in causing his injuries. Had Defendants told Plaintiff the truth about the safety and composition of JUUL's products, he would not have purchased them. Plaintiff also suffered economic harm in that he would not have purchased JUUL if he had known the true facts.

108. Defendants' acts and omissions as described herein were committed maliciously, oppressively, deliberately, with intent to defraud, and in reckless disregard of Plaintiff's rights, interests, and well-being to enrich Defendants. Defendants' conduct warrants an assessment of

punitive damages in an amount sufficient to deter such conduct in the future, which amount is to be determined according to proof.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally, and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees.

COUNT VI
Fraudulent Concealment

109. Plaintiffs incorporate by reference the preceding paragraphs as if fully set forth herein.

110. Defendants had a duty to disclose material facts about JUUL to Plaintiff, as:

- a. Defendants disclosed some facts to Plaintiff about the nature and safety of its products but intentionally failed to disclose other facts, making the disclosures it did make misleading or deceptive; and
- b. Defendants intentionally failed to disclose certain facts about the nature and safety of JUUL products that were known only to Defendants and that Defendants knew Plaintiff could not have known or reasonably discovered.

111. At all times relevant, Defendants fraudulently and deceptively sold or partnered to sell JUUL products to Plaintiff as safe or not harmful, when Defendants knew it to be untrue.

112. At all times relevant, Defendants fraudulently and deceptively downplayed or minimized any risk associated with e-cigarettes generally and JUUL in particular. At all relevant times, Defendant JUUL represented its products on its website as a “smarter” choice. Defendant

JUUL pitched investors by claiming that the product was not harmful, and therefore any concern about addiction was irrelevant. Defendants and/or others worked together to pitch news stories or other media content designed to downplay the risks of e-cigarettes, suggesting that any concern was overblown, or a panic. These tactics mimic those used by the tobacco industry to sow seeds of doubt and confusion among the public, to initiate new users, to keep customers buying JUUL products, and to avoid regulation or legislative efforts to control sales.

113. Defendants failed to disclose to Plaintiff that JUUL contains harmful chemical compounds, including but not limited to chemical flavorings, that cause significant pulmonary, cardiac and neurologic injuries.

114. Defendants failed to disclose that they had not adequately researched or tested JUUL to assess its safety before placing it on the market and promoting it as a safe or smart alternative to combustible cigarettes.

115. Defendants failed to disclose that JUUL was designed to be highly addictive and delivered significantly more nicotine than the amount stated on JUUL's packaging.

116. Each of these misrepresentations and omissions were material at the time they were made. In particular, each of the misrepresentations and omissions concerned material facts that were essential to the analysis undertaken by Plaintiff as to whether to purchase or consume JUULpods.

117. Plaintiff did not know of the facts that Defendants concealed.

118. Defendants intended to deceive Plaintiff and the public by concealing these facts.

119. Defendants had a duty to accurately provide this information to Plaintiff. In not so informing Plaintiff, Defendants breached their duty. Defendants also gained financially from, and as a result of their breach.

120. Defendants had ample opportunities to disclose these facts to Plaintiff, through packaging, advertising, retail outlets, on its website, via emails to Plaintiff, and on social media. Defendants concealed material information at all relevant times, through today. Defendants have yet to disclose the truth about JUUL products.

121. Plaintiff relied to his detriment on Defendants' fraudulent omissions. Had Plaintiff been adequately informed of the material facts concealed from him regarding the safety of JUUL, and not intentionally deceived by Defendants, he would not have purchased or used JUUL products.

122. Defendants' fraudulent concealment was a substantial factor in Plaintiff's injuries as described above. Plaintiff also suffered economic harm in that he would not have purchased JUUL if he had known the true facts.

123. Defendants' acts and omissions as described herein were committed maliciously, oppressively, deliberately, with intent to defraud, and in reckless disregard of Plaintiff's rights, interests, and well-being to enrich Defendants. Defendants' conduct warrants an assessment of punitive damages in an amount sufficient to deter such conduct in the future, which amount is to be determined according to proof.

WHEREFORE, Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., demand judgment against Defendants, individually, jointly, vicariously, severally, and/or in the alternative, for such damages as may be permitted pursuant to the laws of the Commonwealth of Pennsylvania, together with interest thereon, costs of suit and attorneys' fees.

PRAYER FOR RELIEF

Plaintiffs, S.S. and K.S., as parents and natural guardians of their minor child, E.S., request the Court to enter judgment against the Defendants as follows:

A. An award to Plaintiffs of compensatory and punitive damages, costs and reasonable attorneys' fees, as permitted by law;

- B. An award of pre-judgment and post-judgment interest, as provided by law;
- C. Leave to amend this Complaint to conform to the evidence produced at trial; and
- D. Such other relief as may be appropriate under the circumstances.

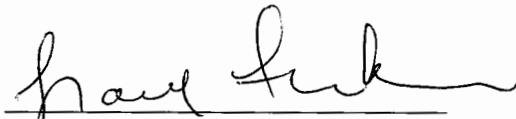
JURY TRIAL DEMANDED

Plaintiffs demand a trial by jury on all issues so triable as a matter of right.

Dated: October 16, 2019

Respectfully submitted,

ANAPOL WEISS



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